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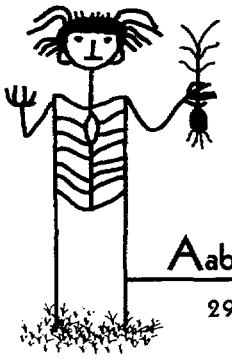

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THE RAINY CREEK SITE (24LN1045) DATA AND SIGNIFICANT INFORMATION RECOVERY PLAN AND SECTION 106 PROCESS REVIEW AS PART OF THE SCREENING PLANT REMOVAL ACTION WORK PLAN LIBBY, MONTANA ASBESTOS EMERGENCY RESPONSE PROJECT U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 8

by

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Prepared for:

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August 2000

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TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

Project Understanding

Region 8 of the United States Environmental Protection Agency (EPA-8) is directing and coordinating removal and remediation activities associated with the Libby, Montana Asbestos Emergency Response Project which is located in Lincoln County in northwestern Montana (Figures 1 and 2). The Environmental Engineering Division (DTS-33) of the John A. Volpe National Transportation Systems Center (Volpe Center) is providing environmental engineering and contaminant removal support to the EPA-8. The Volpe Center and their contractor, CDM Federal Programs Corporation (CDM) and it's subcontractor, Pacific Environmental Services, Inc. (PES), along with the Volpe Center's removal/demolition contractor, MARCOR Remediation, Inc. (MARCOR), have been requested to prepare a Removal Action Work Plan (RAWP), and Remedial Action Cost Estimate for the Libby Asbestos Project. The Volpe Center is functioning as coordinator of this effort, consolidating information provided by CDM, PES and MARCOR.

The Libby Asbestos Project includes time critical removal actions at two locations of the Libby Asbestos Site (the site). One of those locations is termed Operable Unit 02 and is the locus of the former W.R. Grace Screening Plant (Screening Plant). Operable Unit 02 occurs on the east side of the Kootenai River at its confluence with Rainy Creek in the NE1/4 of Section 32, T31N, R30W in Lincoln County, Montana (Figures 2 and 3).

Remediation activities at Operable Unit 2 will generally include removal of contaminated soil to a maximum of 18 inches below surface in areas determined by surface soil sampling to contain asbestos. Latest data indicates there will be some pockets of asbestos and vermiculite which will require from four to eight feet of stripping (McGuiggin and Peronard, personal communication). Soil removal will require use of heavy equipment for stripping and/or excavation and use of trucks to transport contaminated soils to a disposal site.

Archaeological site 24LN1045 occupies essentially all of Operable Unit 2 (Figure 3) and is located on parts of the privately owned Parker, Wise, and Owens properties. The site is bisected by Rainy Creek, with the Kootenai River on the west, and Highway 37 on the east (a small portion of 24LN1045 extends to the east side of Highway 37). Asbestos-contaminated soils are believed to encompass the entire boundary of 24LN1045. Therefore the entire surface of 24LN1045 will be affected by soil removal. Because 24LN1045 has been recommended as eligible for listing in the National Register of Historic Places (Griffin and Aaberg 1994), and because the EPA is directing and coordinating removal and remediation of the Libby Asbestos Project, consideration of potential impacts to this archaeological site are mandated by various cultural resource federal laws and statutes.

Scope of Work

As the primary contractor for the project CDM subcontracted with Aaberg Cultural Resource Consulting Service (ACRCS) to provide technical expertise in the area of legal responsibilities of the EPA and their contractor CDM with respect to cultural resource laws as they relate to archaeological site 24LN1045. More specifically, the statement of work attached to the CDM - ACRCS subcontract required: 1) review of relevant site (24LN1045) information; 2) conduct site visit if necessary; 3) prepare an evaluation of findings, list and description of applicable Federal and State of Montana regulations and statutes, draft recommendations for archaeological and cultural mitigation activities to be performed on archaeological site 24LN1045 in conjunction with the asbestos removal action; provide a draft recommendations report that would include anticipated work plan and a schedule of estimated cost of implementing the draft archaeological mitigation recommendations; 4) respond to review comments and prepare final recommendations for EPA submittal to the Montana Historic Preservation Office.

24LN1045 REVIEW

History of Discovery

Although archaeological surveys and investigations along the Kootenai River between Libby, Montana and the Canada-United States border began as early as 1950 (Shiner) and continued through the 1960s and early 1970s (Taylor 1968, 1969, 1973), archaeological site 24LN1045 was not discovered until 1975 (Munsell 1975). Impetus for many of the early archaeological investigations of this stretch of the Kootenai River came from plans to construct a dam on the river between Libby and the Canada border. This dam, subsequently named Libby Dam, was completed in 1975.

Cultural resource survey along the Kootenai River below Libby Dam continued as plans were put forth to construct a reregulating dam (plans for constructing this dam were subsequently dropped when concerns over environmental issues led to litigation). Anticipating potential impacts to any cultural resources in the construction zone for the proposed reregulating dam and in the zone of pool level fluctuation, the United States Army Corps of Engineers-Seattle District (USACE-SD)initiated cultural resource survey between an area beginning about 7.5 miles upstream from Libby and ending just below Libby Dam. Much of the site identification phase of this survey was carried out by USACE-SD archaeologists including David Munsell. It was Munsell who in 1975 first discovered and recorded 24LN1045, to which he assigned the name Rainy Creek Site. Archaeological investigations within what came to be known as the Libby Additional Units and Regulating Dam (LAURD) project area continued through the late 1970s and 1980s. Beginning in 1977 and continuing through 1979 the University of Idaho was contracted by the USACE-SD to continue archaeological survey, evaluate archaeological sites, and develop a cultural resource management plan for the LAURD project area (Bies, Rice and Sprague n.d.; Choquette n.d.; Choquette and Rice 1977; Choquette, Rice and Sprague 1978; Rice 1979).

Archaeological investigations up to 1978 identified 64 prehistoric and historic cultural

resource sites in the LAURD project area (Roll and Smith 1982). The unusually high concentration of cultural resource sites, many judged individually as significant, in the approximately 7.5 mile long LAURD project area corridor along both sides of the Kootenai River led the USACE-SD to recommend that the entire project area be considered an archaeological district. In 1978 the USACE-SD formally defined the Libby-Jennings Archaeological District (including sites within the LAURD project area and some just outside the project area) and recommended that this district was eligible for inclusion in the National Register of Historic Places (NRHP). Federal regulations define an archaeological district as a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development (National Register Bulletin 36-1993; National Register Bulletin 15 - 1991 p. 5). The Rainy Creek Site (24LN1045) was included within the boundaries of the Libby-Jennings Archaeological District. Although the district was recommended as eligible for listing in the National Register of Historic Places (NRHP), as of December 1998 the Libby-Jennings Archaeological District and its constituent sites had not been formally nominated to the NRHP (Montana SHPO-MHS 1998).

Although the Rainy Creek Site was included in the Libby-Jennings Archaeological District it was not discussed in the LAURD Cultural Resource Management Plan (Roll and Smith 1982). Since 24LN1045 lay over one mile downstream from the proposed site of the Libby reregulating dam, it was likely felt that the site was not in an area of primary effect associated with construction of, and operation of (pool fluctuation zone) the reregulating dam. In any case 24LN1045 was not tested, excavated, or otherwise investigated during the LAURD cultural resource project begun by the University of Idaho in 1977 and continued by Montana State University in 1979 (Roll and Smith 1982; Roll 1982).

Investigative and Evaluative History

Upon discovery in 1975 (Munsell) the Rainy Creek Site was described as a "prehistoric habitation (open camp); possibly David Thompson's Kootenay house". The site was further described as consisting "of an open camp, midden deposit, on a sloping terrace of the Kootenai River upstream of the intersection of Rainy Creek with the Kootenai River" (Munsell 1975). Buried cultural materials were observed and Munsell stated, "The soil matrix is a brown, sandy silt, ca 2M in depth. The site is built on an alluvial fan created by Rainy Creek and includes numerous angular and rounded rocks, well sorted. The cultural deposit varies from 20cm on the easterly edge to in excess of 1M near the river. Extensive organic staining is evident". Cultural material observed at the site included "abundant organic staining, fire broken rocks, numerous bone fragments, cobble choppers, and cryptocrystalline and obsidian chipping debris" (Munsell 1975). At the time of discovery in 1975 the Rainy Creek Site occurred on private land, according to Munsell, owned by the "Zonolite Corporation". The Munsell site form describes the site condition as exhibiting "extensive surface modification in the form of recent historic house, garden and orchard development, borrow activities, and filling/disposal of vermiculite dust". Munsell recommended that 24LN1045 "should be extensively tested because of its high concentration of prehistoric materials and its potential to provide information regarding the early Kootenay house".

From 1975 until the fall of 1993 the Rainy Creek Site was not re-examined or further documented by any investigators. In 1993 the Montana Department of Transportation (MDT) began planning improvements along a segment of Montana State Highway 37 extending from Libby upstream along the Kootenai River for about eight miles. Highway 37 branches off U.S. Highway 2 at Libby and runs along the north side of the Kootenai River to just below Libby Dam where it crosses the river and passes along the east side of Lake Koocanusa (Libby Dam reservoir) before joining U.S. Highway 93 not far south of the Canada border.

The MDT contracted with ACRCS to carry out a Class III cultural resource inventory of the eight mile long Highway 37 project corridor. Although the 1993 proposed improvements to Highway 37 were minor, they had the potential to disturb or destroy sites within 50' of the road shoulders (Griffin and Aaberg 1994). The primary objectives of the 1993 ACRCS Class III survey were to identify and record any new cultural resource sites within the Highway 37 project corridor and to reinvestigate and evaluate 24LN1045 which was found to occur within or very close to the MDT project area.

The Griffin and Aaberg (1994) report describes previous archaeological investigations in the area generally along the Kootenai River between Libby and the end of the Highway 37 project corridor near Lowry Gulch. In addition to 24LN1045, three previously recorded sites (24LN1036, 24LN1130 and 24LN1135) were found to occur on the north side of the Kootenai River within or very near the MDT project corridor. Two sites (24LN1036 and 24LN1130) were found to have been destroyed or severely damaged by construction of a haul bridge and road associated with the early phases of planning and construction of the since-canceled Libby reregulating dam. Site 24LN1135 was found to occur outside the Highway 37 right-of-way in an area which would not be affected by proposed highway construction. The only new cultural resource discovered during the 1993 survey was a remnant of a historic road which had been disturbed and bisected by original construction of Highway 37.

The original sketch map drawn by Munsell in 1975 showed the boundaries of 24LN1045 restricted to the west side of Highway 37 and not extending to within the highway right-of-way (Figures 2 - 3). During pedestrian survey of the MDT highway right-of-way in 1993, a single basalt flake was found in the Highway 37 east road cut in an area not included in the original 1975 site boundaries. Because the Rainy Creek Site had never been tested or evaluated the decision was made by the MDT and ACRCS to test areas within the Highway 37 project area to determine if the site extended to the highway. Since some construction disturbance was anticipated in the highway project corridor archaeological testing of the site also required that a determination of significance or NRHP eligibility be made.

Eight 50cm x 50cm test units were excavated during the 1993 Highway 37 project (Griffin and Aaberg 1994:26-27). Four of these subsurface test units (units 1-4) were located in the Highway 37 right-of-way with two on either side of the highway (Figure 3). Four test units (5-8) were placed west of Highway 37 outside of the right-of-way (Figure 3). Of the eight test units excavated in 1993 only units 7 and 8 sampled areas within the original 1975 site boundaries (Munsell 1975; Griffin and

Aaberg 1994:26-27).

Of the eight test units excavated in 1993 only units 1, 2 and 4 were completely sterile and did not yield archaeological materials (Griffin and Aaberg 1994:28). Griffin and Aaberg (1994:28) summarized test unit yields by stating, "Of the units located outside the right-of-way, one (Unit 5) produced only three fragments of bone, from a single level. The most productive units were those located farthest west (Units 6-8). In general the horizontal density of cultural material, as represented by yield of test units, increases from east to west". The yield of all categories of archaeological materials recovered in 1993 (bone, fire-broken or heat-altered rock, and chipped stone artifacts) was greatest in Units 6-8. The four formal tools, including two fragmentary projectile points, were recovered from Units 7 and 8, the most westward of all 1993 test units and the only units placed within the 1975 site boundaries.

As a result of the 1993 investigations of 24LN1045, site boundaries were expanded northeasterly and were redrawn to include the west highway right-of-way and a small portion of the east right-of-way (Figures 2 - 3).

The absolute age(s) of prehistoric occupations at 24LN1045 has not been determined. Radiocarbon dating of the site was not undertaken as a part of the 1993 investigations. However two fragmentary projectile points were recovered during 1993 testing (Griffin and Aaberg 1994:40). A provisional cultural typology based on projectile points associated with radiocarbon dates and other cultural materials and characteristics was defined by Roll (1982) for the LAURD project area (discussed above). One projectile point (Biface 1) recovered from Unit 1 at 24LN1045 was found to be similar in form to LAURD Type 1-A points (Roll and Smith 1982:I.13). As stated by Griffin and Aaberg (1994:40) Roll considers Type 1-A points to represent Yarnell Phase occupations dating to ca. A.D. 1000-1800. The second projectile point (Biface 3) found at the Rainy Creek Site in 1993 was too fragmentary to reliably associate with a particular time period although similarities were noted between this specimen and those illustrated by Roll (1982) as representative of the Warex (A.D. 500 to 1200) and Yarnell Phases.

Archaeological materials were found between about 5cm and 40cm below surface in 1993 but discrete cultural strata within that zone of artifact yield were not discernible (Griffin and Aaberg 1993: 28). In all 1993 test units, gross natural stratigraphy was apparent but buried soils (paleosols) were not. Soils in all units were very similar with a nearly identical sequence of a thin humic zone of dark brown organic sandy loam (Stratum I) extending from surface to about 4cm below surface. Stratum I was underlain by Stratum II, a medium brown sandy loam with unsorted alluvial gravel and rock, from 4cm to 25cm below surface. Stratum III, below Stratum II, was a tan-brown or orange brown fine sandy loam with unsorted alluvial gravel and rock. Stratum II in all units generally yielded the greatest quantities of cultural material. Root penetration and rodent burrowing was noted in most units and disturbance of some cultural deposits by these agents was considered likely (Griffin and Aaberg 1994:29).

Other disturbances to the surface of 24LN1045 were also noted in 1993. Munsell (1975) had

noted disturbance to the site through construction of a house and disposal of vermiculite dust. In 1993 the land upon which the Rainy Creek Site occurs was still owned by W.R. Grace however vermiculite processing and screening had ceased and a house no longer remained on the property. Just two months before the 1993 archaeological investigations of 24LN1045, W.R. Grace had undertaken reclamation of the vermiculite dust disposal areas within the boundaries of the site (Griffin and Aaberg 1994:25). Griffin and Aaberg (1994:26) further noted that, "Along with vermiculite, the topsoil was removed to an unknown depth, and the surface was recontoured.....Reclamation was concentrated in the eastern and southern portions of the site. Most of the rest of the site, along with "islands" in the southeastern part, were left intact". It was estimated that W.R. Grace reclamation activities affected about 20,300 square meters, or about 30 percent of the site. The site was originally estimated to cover about 45,000 square meters (Munsell 1975) but with the discoveries made in 1993 and expansion of boundaries the site area was estimated at about 70,000 square meters.

Site 24LN1045 was evaluated as an archaeological site in 1993. Although Criterion D was not specifically quoted as the determinant of significance it is obvious the investigators were using the general guidelines of archaeological significance under Criterion D (see below). In the concluding section (Griffin and Aaberg 1994:43-46) of the report detailing evaluation of the Rainy Creek Site the investigators state:

> Although portions of 24LN1045 have been exposed to substantial surface and subsurface disturbances related to vermiculite processing and residential developments, the site retains areas of intact cultural deposits. These intact deposits include artifacts diagnostic of cultural period as well as a variety of other archaeological materials.
>
> Discernible features were not located during excavation, but the presence of FBR and the abundance of burnt bone demonstrate the site has the potential of containing features, possibly with dateable charcoal and/or other organics. The presence of numerous burned roots form forest fires could complicate the collection of radiocarbon dates. The lack of stratification in the deposits and the affects of bioturbation also complicate the process of determining context. Nevertheless the potential for determining context remains in the form of bone, charcoal, and diagnostic artifacts (projectile points).
>
> Two square meters were excavated into the site, within and just outside the Highway 37 right-of-way. A total of 15 lithic artifacts were recovered from the eight 50cm square test units for an overall yield of 7.5 chipped stone artifacts per square meter. Bone yields were higher although most of the bone was fragmentary [the bone referred to in the conclusion was earlier in the Griffin and Aaberg report identified as non-human, medium-size ungulate bone possibly from deer]. Bone fragments numbering 163 and weighing 54.72 grams were found in tests for a yield of 81.5 fragments (27.36 grams) per square meter.

> Buried sites with potential context are uncommon in northwestern Montana. As such a site, 24LN1045 could contribute to understanding of local and regional prehistory. Numerous questions on local subsistence adaptations and unique cultural systems remain unanswered for much of western Montana, west of the Continental Divide. With moderate material cultural densities and the possibility of preserved context, good research potential is indicated by the site. Therefore 24LN1045 is recommended as eligible for listing in the National Register of Historic Places.

In 1978, as a part of the Libby-Jennings Archaeological District, the Rainy Creek Site had been recommended as eligible for listing in the NRHP. In 1993, as an individual site, 24LN1045 was recommended as eligible for inclusion in the NRHP.

Munsell (1975) in the original site form for 24LN1045 suggested the site could possibly be the location of David Thompson's Kootenay House. Griffin and Aaberg (1994:16-17) present a brief summary of David Thompson's activities in what is now the state of Montana. Thompson was a Welshman who migrated to Canada in 1784 and began working for the Hudson's Bay Company and later the North West Company (Malone et. al. 1991). Thompson was a part of British interests push into interior western North America and by 1807 or 1808 Thompson and the North West Company entered Montana and began establishing trading posts or houses. The first North West Company trading post was named Kootenay or Kootenai House (Malone et. al. 1991; Toole 1959). The exact location of Kootenay House is not known with certainty. Toole (1959:45) states that Thompson built "Kootenae House" at the foot of Lake Windermere. Toole goes on to say, "From Kootenae House, Thompson dispatched Finan McDonald down the Kootenai River, where he set up a post in the neighborhood of present-day Libby, Montana" (Toole 1959:45). These statements suggest Kootenai House was upstream from Libby in the vicinity of Lake Windermere which is on the Kootenai River in British Columbia well north of the U.S. border. Malone et. al. (1991:44) state that Thompson established *Kootenai Post* near present-day Libby, Montana but that three years later the post was moved farther up the Kootenai River near the mouth of the Fisher River. Part of the problem with reference to Kootenay House is the fact that apparently Kootenai Post or Fort Kootenai was an entirely different facility than Kootenay House. There seems to be general agreement that Kootenay House was established at the headwaters of the Columbia which are in British Columbia whether referring to the actual upper end of the Columbia River itself or to the upper Kootenai River. In any case Griffin and Aaberg (1994:25) state that posts of any sort have never been documented as occurring at the mouth of Rainy Creek. However, in a recent (July 2000) conversation with ACRCS Mark White stated that he had some early maps and information that indicate a very short term trading post may have been located at the mouth of Rainy Creek (7/00 Mark White, personal communication).

After conferring with Kootenai Forest-Libby District archaeologist Mark White, Griffin and Aaberg speculate that Munsell may have been confused by a historic name associated with Rainy Creek. According to White a cabin was constructed at the mouth of Rainy Creek by Ben Thomas who prospected on Rainy Creek and entertained travelers who passed through the Kootenai valley. Local informants suggest that it was Thomas who planted the apple orchard still present within the

boundaries of 24LN1045. The Thomas cabin is labeled and depicted on some early historic maps of the area including the 1899 General Land Office map of the township and range and on some 1903 timber cruise maps. Griffin and Aaberg further cite Mark White as indicating that some sources place the Ben Thomas cabin on the south side of Rainy Creek within the boundaries of 24LN1045 while others place it on the north side of Rainy Creek in the location of the W.R Grace screening plant.

The end result of the discussion of Kootenay House and the Ben Thomas cabin was that 24LN1045 was recommended as eligible for inclusion in the NRHP solely on its value as a prehistoric archaeological site. Any evidence of the Ben Thomas cabin had long since disappeared and there is strong evidence indicating that Kootenay House was never located anywhere near Rainy Creek.

2000 Site Survey

During research and preparation of this report records documenting surface survey or any other archaeological investigation of the north side of Rainy Creek (where buildings and structures associated with the W.R. Grace screening plant occurred) could not be located. Although the locality occurred generally within the USACE-SD LAURD project area, it could not be determined if the property had ever been inspected by archaeologists. Federal law requires that attempts be made to locate cultural resources within project boundaries of any federal undertaking where the landscape will be altered. Because previous archaeological survey of the north side of Rainy Creek could not be documented, and because this property occurs in close proximity to the 1975 and 1993 boundaries of 24LN1045, the EPA through its contractor CDM, requested that ACRCS carry out a surficial examination of the north side of Rainy Creek to determine if archaeological materials occur in that area. Through a contract amendment ACRCS agreed to carry out a surficial survey of Operable Unit 2 including the former location of the W.R. Grace screening facility. Principal investigator Stephen Aaberg, of ACRCS, examined the property on the morning of July 26, 2000.

The EPA, through its contractors and subcontractors, had already begun preliminary fieldwork and analyses associated with remediation of the old vermiculite processing locality prior to the July of 2000 archaeological survey. The extreme threat to public health represented by the asbestos contaminated property required immediate action by the EPA. Soil testing is on-going on the property and includes small scale probing as well as larger pits and trenches. Erosion control is a priority on the property and shallow trenches adjacent to Rainy Creek and the Kootenai River (north of Rainy Creek) have been excavated and lined with straw bales. Constant monitoring of the air at the locality is required. Access to the property is restricted to those who are certified in hazardous material health and safety procedures. Because ACRCS personnel have not been trained or certified in these procedures, Stephen Aaberg could only visit the property when all remediation activities were halted and after air quality clearance. Because of these health and safety regulations, time for archaeological investigation was restricted to 6:00 AM through 9:00 AM on July 26. Health and safety concerns and regulations also prohibited any subsurface testing at this time. Therefore archaeological survey was restricted to surficial observations and observations of pits, trenches, erosional exposures, and the river bank. The entire remediation property located on the north side

of Rainy Creek was inspected by Aaberg. Portions of 24LN1045 (as identified in 1975 and 1993) on the south side of Rainy Creek were also reinvestigated by Aaberg in July of 2000.

Upon examination of the north side of Rainy Creek in 2000 it was obvious that more development of the property had occurred since it was viewed in 1993 (Figures 3 - 5). Nursery and greenhouse facilities, as well as a residence, had been constructed by the current property owners who acquired the land from W.R. Grace. Additional roads had also been constructed. The south side of Rainy Creek (Figure 4) on the other hand did not appear to have undergone substantial disturbance or development since 1993 although private landowners on the south end of the property hope to construct a residential subdivision when remediation is complete.

Examination of remediation-related pits and trenches disclosed that cutting and filling up to two meters in depth had occurred in portions of the north side property. Examination of the pits and the Kootenai River bank indicate that the landform on the north side of Rainy Creek is composed primarily of alluvial sands and gravels deposited principally by Rainy Creek. Although the river banks are extremely heavily vegetated, a few areas exhibited large-clast, alluvial fan deposits to over one meter in depth. Eastern portions of the property display gravels of largest size with some boulders up to one meter or more in diameter observed. Closer to the river bank clast size diminishes. These high-energy alluvial fan deposits are not unexpected on the downstream (downriver) side of Rainy Creek. Kootenai River overbank fines were not observed on the north side of Rainy Creek although deep river bank exposures were not available for inspection.

Observation of the various subsurface exposures indicate that about 75% of the landform on the north side of the creek has undergone substantial development-related disturbance to an unknown depth. The extreme north edge of the property appears to have escaped substantial disturbance (Figure 5). It was in this area that archaeological materials were first noted. Numerous small fragments of burned and calcined bone, a few pieces of heat-altered rock, and five flakes (chert, chalcedony, and argillite) were observed in disturbed areas near power poles and guy wire anchors (Figures 3 and 5). One chert flake and several heat-altered rocks were also noted on the surface about 50 meters south-southwest of the power poles. Several fragments of burned and calcined bone and one unburned long bone fragment from a medium-size ungulate were noted *in situ* in the river bank adjacent to the power poles. These materials were apparent about 12-15cm below surface. Overturned sod adjacent to one of the power poles contained numerous burned and calcined bone fragments within the root zone suggesting that these archaeological materials likely occur at about the same depth as those observed in the river bank. One small calcined bone fragment and one chert flake were observed in a road cut near the mouth of Rainy Creek (Figure 3). These materials were not in place.

Archaeological materials of any sort were not evident in any of the remediation-related test pits or trenches. Nor were archaeological materials visible in the river bank below about 15cm. Neither natural soil or cultural horizons were evident in deeper exposures of the alluvial fan deposits.

Based on the presence of numerous bone fragments and other archaeological materials near

the north end of the property, the boundaries of 24LN1045 were expanded to include much of the alluvial fan on the north side of Rainy Creek (Figures 2 and 3). Although archaeological materials were extremely scant over much of the north side property, it is likely the shallowly buried cultural deposits observed on the north edge once extended over much of the property. Extensive disturbance of the surface during construction and operation of the vermiculite plant, and later the private nursery and residence, likely obliterated much of the shallow cultural deposits. Based on observations made in 2000 it is unlikely that intact cultural deposits are present below about 15-20cm on the north side of Rainy Creek. As mentioned, subsurface exposures available for inspection indicate that high-energy alluvial fan sands and gravels are the primary constituents of deposits on the north side of the creek. These sediments were likely amassed by Rainy Creek as flood and channel deposits during episodes and pulses of high stream flow. Considering the clast-size of these fan deposits, it seems unlikely that any cultural materials contained within them would retain context. However, the archaeological materials observed near the present landform surface likely retain context since Rainy Creek appears to have been in a down-cutting mode for some time and recent fan deposits are not apparent.

Portions of the south side of Rainy Creek where the original boundaries (1975 and 1993) of 24LN1045 were delineated was also reinvestigated in 2000. As opposed to the north side of Rainy Creek, the landform on the south side includes Kootenai River overbank fines in areas marginal to the river as well as alluvial fan deposits in eastward portions. Although the south side of the creek has experienced some disturbance, investigation of the river bank indicate that portions of the site remain intact.

Numerous bone fragments and heat-altered rocks were noted in overbank sediments exposed in the river bank. These materials occur within about the first meter below surface. Because the river bank could not be faced up it could not be determined with certainty at what depth cultural materials occurred. Preliminary observations suggest that cultural materials could be coming from at least two zones (one in the first 20-30cm below surface and one from 60-90cm below surface. At some time in the past, a pit had been excavated adjacent to the river (Figure 3). This pit was then infilled with vermiculite to an unknown depth. Overburden removed from this pit when it was excavated lay adjacent to the pit. Examination of this overburden revealed numerous fragments of both burned and unburned bone (dominated by medium-size ungulate). Numerous fragments of heat-altered rock were also visible in the overburden. Two argillite flakes, three chert flakes, and a quartzite flake were noted in and around the overburden pile and in the river bank adjacent to the pile. More bone and heat-altered rocks were observed in the river bank to the southeast of the vermiculite pit (Figure 3).

Surficial observations suggest that the richest (in terms of artifact or cultural material content) portion of 24LN1045 is within the original 1975 boundaries of the site in areas marginal to the Kootenai River (Figure 3). Shallowly to deeply buried archaeological materials are indicated here.

The brief archaeological survey carried out in July of 2000 resulted in expansion of the boundaries of 24LN1045 to include the north side of Rainy Creek. This survey indicates that intact, shallowly buried cultural deposits are present on the extreme north end of the site (Figures 3 and 5).

Although subsurface testing was not part of the 2000 investigations, observations of remediation-related pits and trenches suggests that much of the north side of the creek has been disturbed and that deeply buried cultural deposits with good context are unlikely to be present in the high-energy alluvial fan deposits. The shallowly buried archaeological deposits at the north edge of the site appear to be intact and include dateable organics (bone) and lithic artifacts. This small undisturbed portion of the site north of Rainy Creek is suggested as contributing to the overall significance of 24LN1045. The 2000 survey also indicates that rich, undisturbed cultural deposits are present on the south side of Rainy Creek and are particularly evident in areas marginal to the Kootenai River.

LEGAL CONSIDERATIONS AND PROCESSES

Introduction

Cultural resources are tangible remains of past human activity within the landscape. Cultural resources are identified and defined as geographic units or "sites" where past human activity occurred and evidence of past use can be documented. Generally, any site of human activity older than 50 years can be considered to be a cultural resource. Cultural resources include both historic and prehistoric sites. Historic sites are distinguished from prehistoric sites by general age with historic sites associated with the era of written records for a particular area and prehistoric sites pre-dating written records for a particular area. Some sites which contain historic era artifacts (e.g. metal and glass items) but which date to a period before direct white or Euro-American contact with aboriginal or American Indian/Native American populations are termed protohistoric sites. Archaeological sites are included in the term cultural resources but most often define sites that are in ruins and whose histories must be interpreted. Archaeological sites can be both historic and prehistoric in general age.

Traditional cultural properties are defined as landforms, spiritual use locations, or economic use areas important to modern Native Americans in the expression and practice of traditional cultural values, spirituality, and religion. These traditional resources often have a long history of use, and are associated with beliefs, customs, and practices of modern communities. Oral histories documenting the roles of these resources in traditional cultural values have often been passed down through generations. These traditional resources play a continuing role in tribal identities and sense of community. Native American resources do not always display physical evidence of past human use since many activities of traditional cultural expression leave no observable impact on the environment. Some archaeological sites may be considered as traditional cultural properties particularly if they contain artifacts or objects which can be defined as sacred or religious in nature.

Native American resources and religious practices are protected by a number of federal laws, including the 1978 American Indian Religious Freedom Act (AIRFA), the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), and the National Historic Preservation Act of 1966 (NHPA). Federal guidelines direct federal agencies to consult with contemporary Native American tribal representatives and traditionalists who may have concerns about federal actions that may affect religious practices or other traditional cultural uses.

Historic and prehistoric cultural resources are protected by federal laws including the Archaeological Resources Protection Act (ARPA) of 1979, the NHPA and various amendments and statutes, and the National Environmental Policy Act of 1969 (NEPA). In Montana, cultural resources on state land, or in areas affected by a proposed undertaking permitted or directed by the state, are protected by the Montana Environmental Protection Act (MEPA).

History of Cultural Resource Laws

The first law enacted to protect what are now called cultural resources was the Antiquities Act of 1906. This law gave the federal government and federal officials the responsibility of protecting archaeological sites as public resources. Two subsequent federal acts were passed in part because of the failure of the 1906 Antiquities Act to adequately protect archaeological and historic sites. The first of these acts was the 1966 National Historic Preservation Act (NHPA) and the second was the 1979 Archaeological Resources Protection Act (ARPA).

The NHPA directed the Secretary of the Interior to expand and maintain a National Register of historic sites, districts, buildings, structures and objects. The NHPA has become the principal legislation for implementing historic preservation particularly on Federal lands or on Federal undertakings (e.g. permitting, licensing, cost-sharing, loans for development). The National Register of Historic Places or National Register has become the official list of cultural resources determined, through a formal evaluation process, worthy of preservation because they are significant in American history, architecture, archaeology, engineering and culture (Montana SHPO-MHS 2000:2).

Another early law associated with the protection of cultural resources was the Historic Sites Act of 1935 which established a national policy for preserving historic resources for public use. This act gave the Secretary of the Interior "the power to make historic surveys, and to document, evaluate, acquire and preserve archaeological and historic sites across the country" (Montana SHPO-MHS 2000:1).

In 1947 the National Council for Historic Sites and Buildings was organized to include members of the American public as well as representatives of the National Park Service and others interested in historic preservation (Montana SHPO-MHS 2000). Organization of this council was followed in 1949 by the establishment of the National Trust for Historic Preservation which "was charged with facilitating public participation in historic preservation and was empowered to receive donations of sites, buildings and objects significant in American history as well as to administer gifts of money, securities and other property for carrying out a preservation program" (Montana SHPO-MHS 2000).

The 1966 NHPA established the Advisory Council on Historic Preservation (ACHP) as an independent Federal agency to advise the President and Congress on matters involving historic preservation. The ACHP was authorized to review and comment on all actions permitted by, licensed by, directed by, or undertaken by the Federal government that will have an effect on cultural resources. Subsequent amendments and to the NHPA and the issuance of statutes have continued

through the 1990s. Eventually a system of State Historic Preservation Offices (SHPOs), headed by a State Historic Preservation Officer, was established with Federal assistance to aid in administering the many aspects of the NHPA on a local and state level. In Montana, the State Historic Preservation Office is part of the Montana Historical Society but SHPO responsibilities are focused toward the many angles of historic preservation encompassed by the NHPA.

The 1979 Archaeological Resources Protection Act (ARPA) established major criminal and civil penalties for violators of the 1906 Antiquities Act. Amendments made to ARPA in 1988 simplified prosecutions and also required federal agencies to undertake archaeological surveys and to develop and expand public education programs related to archaeological resources.

Another law passed in 1990 has implications for some archaeological sites. This law, the Native American Graves Protection and Repatriation Act (NAGPRA), requires federal agencies and most museums in the United States to inventory Native American human remains, burial artifacts, sacred objects, and objects formerly owned communally by tribes. It also requires federal agencies to offer to return these items to Indian tribes that are clearly affiliated with them. If such remains and artifacts are discovered in archaeological sites, then elements of NAGPRA apply to investigations of, and administration of, such sites. Elements of AIRFA can apply to some archaeological sites too if sites or artifactual remains within them are associated with, or can be documented to have been associated with Native American religious practices.

Laws Applicable to the Libby Asbestos Project and 24LN1045

Operable Unit 2 and 24LN1045 occur on private land (Parker, Wise and Owen properties) adjacent to the Kootenai River. This location is either entirely within, or partially within, the boundaries of a number of Class III cultural resource inventory projects beginning in 1950 and continuing through 1994 (Shiner 1950; Taylor 1968, 1969, 1973; USACE-SD 1975; Munsell and Salo 1979; Roll and Smith 1982; Roll 1982; Bies et. al. n.d.; Rice 1979; Griffin and Aaberg 1994). Presumably Operable Unit 2 has been adequately surveyed to determine the presence or absence of historic or prehistoric archaeological sites. The United States Army Corps of Engineers - Seattle District (USACE-SD) carried out archaeological survey of the banks of the Kutenai River in the Libby Additional Units and Reregulating Dam Project Area which encompassed Operable Unit 2 of the Libby Asbestos Project. It was during this USACE-SD survey in 1975 that 24LN1045 was first discovered and recorded (Munsell 1975). Although details on the systematics and areas covered by this USACE-SD survey were not available during preparation of discussions presented herein, it is presently assumed that all of Operable Unit 2 has been inspected for the presence of archaeological sites. Obligations under ARPA appear to have been met with respect to archaeological survey of Operable Unit 2. It is not known if Operable Unit 1 and the area of the vermiculite mine have been intensively surveyed to determine if cultural resources are present in potential impact areas. As the lead federal agency the EPA would be responsible under ARPA, as well as NHPA, to ensure that cultural resource considerations and investigations of Operable Unit 1 have occurred or will occur prior to land-disturbing activities.

Archaeological site 24LN1045 was first recorded in 1975. An unusually high concentration of archaeological sites along the Kootenai River between Libby and Libby Dam was defined as the Libby-Jennings Archaeological District by the USACE-SD and in 1978 this district was recommended as eligible for inclusion in the NRHP. As a constituent member of the Libby-Jennings Archaeological District 24LN1045 was also considered eligible for NRHP listing in 1978 but was not individually evaluated for significance until 1993 (Griffin and Aaberg 1994) when it was recommended as eligible for listing in the NRHP. Proposed removal of asbestos-contaminated soil includes as yet unspecified areas within the boundaries of 24LN1045. Preliminary results of testing for contamination suggest much of the site may contain asbestos. The Libby Asbestos Project is being directed and coordinated by Region 8 of the EPA. It appears that the project is not a state undertaking but a federal undertaking. Therefore federal laws, primarily NHPA, apply to the Libby Asbestos Project. A discussion of NHPA and its various sections and statutes applicable to the Libby Asbestos Project is presented below.

Section 106 Review

Federal regulations applicable to the process of complying with NHPA as it relates to the protection of historic sites or properties are covered in 36 CFR Part 800 of NHPA regulations. Part 800 of these regulations discusses Title 1- Section 106 of the NHPA. Compliance with Federal cultural resource laws has come to be known as "the 106 process" or "Section 106 process". It is Section 106 which is most applicable to consideration of 24LN1045 within the scope of the proposed Screening Plant Removal Action Work Plan - Libby, Montana Asbestos Emergency Response Project. Relevant portions of Part 800 of the NHPA regulations which detail the Section 106 process are presented below. Much of that presented below is excerpted directly from the *Section 106 Users Guide,* the *106 Regulations Summary,* the *106 Regulations Flow Chart Explanatory Material,* the *106 Recommended Approach for Consultation on Recovery of Significant Information from Archeological Sites,* the *Indian Tribes and the Section 106 Review Process, Section 106 Major Changes,* and *The National Historic Preservation Act of 1966, as amended* as they were presented on the Advisory Council on Historic Preservation web site at **http://www.achp.gov** on June 26, 2000. In the language of NHPA and its attendant regulations an agency or Federal agency, or Federal Official would be, in the case of the Libby Asbestos Project, the EPA.

Sec. 800.1(a) - Purposes of the Section 106 Process

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (Council) a reasonable opportunity to comment on such undertakings. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. Routine decisions regarding the Section 106 process will no longer be reviewed by the Council as long as their is agreement between the Federal agency responsible for compliance and the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO). The Council may enter the Section 106 process when an undertaking 1) has substantial impacts on important historic properties; 2) presents important questions of policy or interpretation; 3) has the potential

for presenting procedural problems; or 4) presents issues of concern to Indian tribes or Native Hawaiian organizations.

It is presently understood that the EPA has accepted their role as the Federal agency responsible for ensuring Section 106 compliance. The EPA, through their contractor CDM, has begun the Section 106 process and has made preliminary contact with the Montana SHPO. Section 106 regulations encourage early compliance to allow time for all considerations and interactions. The emergency nature of the Libby Asbestos Project presents some time constraints and will likely require an accelerated 106 process.

Sec. 800.3(a) - Establish Undertaking

Assuming that an Agency Official has determined that the undertaking (Libby Asbestos Project) does have the potential to cause effects on historic properties, the agency proceeds to identify properties that might be affected. In this case the EPA has recognized the presence of 24LN1045 within the Libby Asbestos Project Area and has begun the process of considering the affects of their undertaking through their contractor CDM.

Sec. 800.3c - Identify the Appropriate SHPO and/or THPO

The Federal agency (in this case the EPA) has the responsibility to properly identify the appropriate SHPO and/or THPO (Tribal Historic Preservation Office) that must be consulted. Operable Unit 2 of the Libby Asbestos Project occurs on private land well outside the boundaries of any Indian Reservation. The Montana SHPO is generally the appropriate Section 106 advisory body for cultural resources located on non-tribal lands off any reservation. However, Section 101(d)(6)(b) of the NHPA requires consultation with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by an undertaking regardless of location. Such Indian tribe is a consulting party and consultation can be facilitated through a THPO, tribal cultural committee, tribal council, or any other groups or individuals.

The Confederated Salish-Kootenai Tribes of the Flathead Reservation are Native American groups most proximal to the Libby Asbestos Project area and Salish-Kootenai peoples have ancestral ties to the project area.

Sec. 800.3(e) - Plan to Involve the Public

The EPA must decide early how and when to involve the public in the Section 106 process. A formal plan is not required, although that may be appropriate depending upon the scale of the undertaking and the magnitude of its effects on 24LN1045.

Sec. 800.3(f) - Identify Other Consulting Parties

The EPA, at an early stage of the Section 106 process, is required to consult with the SHPO to identify those organizations and individuals that will have the right to be consulting parties under the terms of the regulations. These may include local governments, Indian tribes, and applicants for Federal assistance or permits. Others may request to be consulting parties, but the decision is ultimately up to the Agency Official (EPA).

Sec. 800.3(g) - Expediting Consultation

An Agency Official (EPA) can combine individual steps in the Section 106 process with the consent of the SHPO. Doing so must protect the opportunity of the public and consulting parties to participate fully in the Section 106 process.

Sec. 800.4 - Identify Historic Properties

This step, known as "identification" includes preliminary work, actual efforts to identify properties, and an evaluation of identified properties to determine whether they are "historic"; i.e., they are listed on, or eligible for inclusion in, the National Register of Historic Places (NRHP).

This step appears to have been completed for Operable Unit 2. Site 24LN1045 was recorded in 1975 and was evaluated and determined eligible for inclusion in the NRHP. The EPA is aware of its presence and has begun the 106 process. However, 24LN1045 was identified and evaluated on its merits as an archaeological site. Native American consultation was not part of the previous investigations of 24LN1045 or the location of Operable Unit 2. Site 24LN1045 may have significance to area Native Americans pending outcome of consultation with them.

It is not known if the identification step has been completed for Operable Unit 1, the vermiculite mine area. Typically the identification step results in determining if on-the-ground cultural resource surveys have been carried out for a particular parcel of land. If a tract of land that will be affected by a proposed undertaking has not been physically inspected then typically a Class III cultural resource inventory is recommended so any potential cultural resources can be identified, recorded, and evaluated for NRHP eligibility. Background research, consultation, and oral history interviews may also be part of the process of cultural resource identification.

Sec. 800.5 - Assess Adverse Effects

The SHPO/THPO and Indian tribes attaching religious and cultural significance to identified properties, must be consulted when agencies apply the criteria of adverse effect. The Agency Official also needs to consider the views of consulting parties and the public.

Adverse effects occur when an undertaking may directly or indirectly alter the characteristics of a historic property that qualify if for inclusion in the NRHP. Reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative also need to be considered.Examples of adverse effects include physical destruction or damage; alteration of a property not consistent with the Secretary of the Interior's *Standards*; relocation of a property; change of use or physical features of a property's setting; visual, atmospheric, or audible intrusions; neglect resulting in the deterioration; or transfer, lease, or sale of a property out of Federal ownership or control without adequate protections.

Section 800.5(2)(ii) of the regulations includes hazardous material remediation as an example of adverse effects to a property. Removal of contaminated soil is proposed for the portion of Operable Unit 2 which encompasses 24LN1045. The precise size of areas which will be stripped of contaminated soil (generally referred to as area of primary effect in the Section 106 process)

within 24LN1045 is not yet know. It is known that soil removal to a maximum of 18" will have an adverse effect on the site. Use of wheeled or tracked vehicles for soil stripping and transport to a disposal site will increase the depth of disturbance, possibly by as much as another 12", through soil compaction and rutting. Soil compaction and rutting are known to disturb the context of archaeological deposits and could damage or destroy artifacts. Therefore the area of primary effect should be vertically expanded to 30" below surface. It is understood that currently the EPA is in the process of soil sampling to determine what areas within the boundaries of 24LN1045 have been contaminated.

When 24LN1045 was first discovered and recorded in 1975 archaeological materials were noted eroding from 20cm (7.87") below surface to over 1 meter (39.37") below surface (Munsell 1975). During evaluation of 24LN1045 in 1993, subsurface testing took place along Highway 37 in eastern portions of the site and artifactual materials were recovered from 5cm(1.97") to 40cm(15.75") below surface (Griffin and Aaberg 1994). Documented archaeological materials occur well within the vertical area of primary effect.

Archaeological excavation is now considered an adverse effect but is allowable as a mitigative measure as long as a well-devised mitigation and data recovery plan is developed and found acceptable by consulting parties.

Sec. 800.6 - Resolve Adverse Effects

When adverse effects are found, the consultation must continue among the Federal Agency (EPA), SHPO and consulting parties to attempt to resolve them. Although the Montana SHPO can facilitate consultation with respect to adverse effects, any of the consulting parties can request the Council to join the consultation if agreement among any of the consulting parties cannot be reached. The Council will decide on its participation within 15 days of receipt of a request. Whenever the Council decides to join consultation, it must notify the Agency Official and the consulting parties. It must also advise the head of the Federal agency of its decision to participate. This is intended to keep the policy level of the Federal agency apprized of those cases that the Council has determined present issues significant enough to warrant its involvement.

New consulting parties may enter the consultation if the agency and the SHPO (and the Council, if participating) agree. If they do not agree, it is desirable for them to seek the Council's opinion on the involvement of the consulting party. Any party, including applicants, licensees or permittees, that may have responsibilities under a Memorandum of Agreement must be invited to participate as a consulting party.

The Agency Official is obligated to provide project documentation to all consulting parties at the beginning of consultation to resolve adverse effects. Particular note should be made of the reference to the confidentiality provisions.

The Federal agency must provide an opportunity for members of the public to express their views on an undertaking. The provision embodies the principles of flexibility, relating the agency

effort to various aspects of the undertaking and its effects upon historic properties. The Federal agency must provide them with notice such that the public has enough time and information to meaningfully comment.

If all relevant information was provided at earlier stages in the process in such a way that a wide audience was reached, and no new information is available at this stage in the process that would assist in the resolution of adverse effects, than a new public notice may not be warranted. However, this presumes that the public had the opportunity to make its views known on ways to resolve the adverse effects.

Although it is in the interest of the public to have as much information as possible in order to provide meaningful comments, this section acknowledges that information may be withheld in accordance with Section 304 of the NHPA. Under Section 304 information about the location, character, or ownership of a historic resource can be withheld from the public if the Secretary and the agency determine that the disclosure may 1) cause a significant invasion of privacy; 2) risk harm to the historic resource; or 3) impede the use of a traditional religious site by practitioners.

Sec. 800.6 Memorandum of Agreement

When resolving adverse effects without the Council, the Agency Official (EPA herein) consults with the SHPO and other consulting parties to develop a Memorandum of Agreement. If this is achieved, the agreement is executed between the Agency Official and the SHPO and filed with required documentation with the Council. This filing is the formal conclusion of the Section 106 process and must occur before the undertaking is approved. Standard treatments adopted by the Council may set expedited ways for completing memoranda of agreement in certain circumstances.

When the Council is involved, the consultation proceeds in the same manner, but the agreement of the Agency Official, the SHPO and the Council is required for a Memorandum of Agreement (MOA).

A Memorandum of Agreement evidences an agency's compliance with Section 106 and the agency is obligated to follow its terms. Failure to do so requires the Agency Official to reopen the Section 106 process and bring it to suitable closure as prescribed in the regulations.

Certain parties may be invited to be signatories in addition to those specified as the primary consulting parties. It is particularly desirable to have parties who assume obligations under the agreement become formal signatories. However, once invited signatories sign the MOA, they have the same rights to terminate or amend the MOA as the other signatories.

Other parties may be invited to concur in agreements. They do not have the rights to amend or terminate an MOA. Their signature simply shows that they are familiar with the terms of agreement.

The most likely primary consulting parties and signatories for an MOA dealing with adverse

effects to 24LN1045 are the EPA, the Montana SHPO, and tribal groups of the Confederated Salish Kootenai (e.g. Salish-Kootenai THPO, Salish-Kootenai tribal councils, Salish-Kootenai cultural committees).

Sec. 800.7 - Council Comment and Agency Response

There are times when consulting parties cannot resolve issues of adverse effects. The head of the agency or an Assistant Secretary or officer with major department-wide or agency-wide responsibilities must request Council comments when the Agency terminates consultation. Section 110(1) of the NHPA requires heads of agencies to document their decision when an agreement has not been reached under Section 106.

The Council and Agency Official may conclude the Section 106 process with an MOA between them if the SHPO terminates consultation.

A THPO usually is only in a position to terminate consultation with regard to undertakings on tribal lands. In those circumstances there can be no agreement with undertakings and adverse effects but the Council will issue formal comments. This provision respects the tribes sovereign status with regard to its lands. Operable Unit 2 is on private land outside any Indian reservation so this regulation is not relevant to the EPA undertaking.

In cases where the Council terminates consultation, the Council has the duty to notify all consulting parties prior to commenting. The role given to the Federal Preservation Officer is intended to fulfill the NHPA's goal of having a central official in each agency to coordinate and facilitate the agency's involvement in the national historic preservation program.

The Council may provide advisory comments even though it has signed an MOA. This provision is intended to give the Council the flexibility to provide comments even where it has agreed to sign an MOA. Such comments might elaborate upon particular matters or provide suggestions to Federal agencies for future undertakings.

The Council has 45 days to provide its comments to the head of the agency for a response by the agency head. When submitting its comments, the Council will also provide the comments to the Federal Preservation Officer, among others, for information purposes.

Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Site 24LN1045

Background

Sections 800.5 and 800.6 of the Council's revised regulations, "Protection of Historic Properties" (36 CFR part 800) detail the process by which Federal agencies (the EPA herein) determine whether their undertakings will adversely affect historic properties, and if they will, how they are to consult to avoid, minimize, or mitigate the adverse effects in order to meet requirements of Section 106 to "take into account" the effects of their undertakings (in this case the Libby

Asbestos Project) on historic properties.

One such category of historic properties is comprised of prehistoric or historic archaeological resources. The National Register of Historic Places defines an archaeological site as "the place or places where the remnants of a past culture survive in a physical context that allows for the interpretation of these remains" (National Register Bulletin 36, *Guidelines for Evaluating and Registering Historical Archeological Sites and Districts*," 1993, p. 2). Such properties may meet criteria for a variety of reasons, not the least of which may be significance under Criterion D. Criterion D defines archaeological sites as significant if "they have yielded, or may be likely to yield, information important to prehistory or history" (*National Register Criteria for Evaluation*, 36CFR 60.4).

Site 24LN1045 was evaluated as an archaeological site in 1993 (Griffin and Aaberg 1994). Although Criterion D was not specifically quoted as the determinant of significance it is obvious the investigators were using the general guidelines of archaeological significance under Criterion D (see Investigative and Evaluative History section of this report - above).

In the context of taking into account the effects of a proposed or federally-assisted undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register, potential impacts to archeological sites often need to be considered. Appropriate treatments for affected archeological sites, or portions of archeological sites, may include active preservation in place for future study or other use, recovery or partial recovery of archeological data, public interpretive display, or any combination of these and other measures.

Archeological Sites and Their Treatment

The nature and scope of treatments for such properties should be determined in consultation with other parties, but in the Council's experience they generally need to be guided by certain basic principles:

- The pursuit of knowledge about the past is in the public interest.
- An archaeological site may have important values to living communities and cultural descendants in addition to its significance as a resource for learning about the past; its appropriate treatment depends on its research significance, weighed against these other public values.
- Not all information about the past is equally important; therefore not all archeological sites are equally important for research purposes.
- Methods for recovering information from archeological sites, particularly large-scale excavation, are by their nature destructive. The site is destroyed as it is excavated. Therefore management of archeological sites should be conducted in a spirit of stewardship for future generations, with full recognition of their non-renewable nature and their potential multiple uses and public values.

- Given the non-renewable nature of archeological sites, it follows that if an archeological site can be practically preserved in place for future study or other use, it usually should be (although there are exceptions). However, simple avoidance of a site is not the same as preservation.
- Recovery of significant archeological information through controlled excavation and other scientific recording methods, as well as destruction without data recovery, may both be appropriate treatments for certain archeological sites.
- Once a decision has been made to recover archeological information through the naturally destructive methods of excavation, a research design and data recovery plan based on firm background data, sound planning, and accepted archeological methods should be formulated and implemented. Data recovery and analysis should be accomplished in a thorough, efficient manner, using the most cost-effective techniques practicable. A responsible archaeological data recovery plan should provide for reporting and dissemination of results, as well as interpretation of what has been learned so that it is understandable and accessible to the public. Appropriate arrangements for curation of archeological materials and records should be made. Adequate time and funds should be budgeted for fulfillment of the overall plan.
- Archeological data recovery plants and their research designs should be grounded in and related to the priorities established in regional, state, and local historic preservation plans, the needs of land and resource managers, academic research interests, and other legitimate public interests.
- Human remains and funerary objects deserve respect and should be treated appropriately. The presence of human remains in an archeological site usually gives the site an added importance as a burial site or cemetery, and values associated with burial sites need to be fully considered in the consultation process.
- Large-scale, long-term archeological identification and management programs require careful consideration of management needs, appreciation for the range of archeological values represented, periodic synthesis of research and other program results, and professional peer review and oversight.

Resolving Adverse Effects Through Recovery of Significant Information From Archeological Sites

Under 36 CFR 800.5, archeological sites may be "adversely affected" when they are threatened with unavoidable physical destruction or damage. Based on the principles articulated above, the Council recommends that the following issues be considered and addressed when archeological sites are so affected, and recovery of significant information from them through excavation and other scientific means is the most appropriate preservation outcome.

It would seem that recovery of significant archaeological information from 24LN1045 through excavation and other scientific means is an appropriate outcome. Portions of the site have likely already been disturbed or destroyed. About 75% of the site on the north side of Rainy Creek,

and about 30% of the site on the south side of Rainy Creek are estimated to have been severely impacted by development. More of the site will likely be disturbed or destroyed by removal of contaminated soils. Only a very small portion of 24LN1045 on the extreme east edge of the site has been tested and data recovery was minimal. Radiocarbon dates have not been obtained from the site so the absolute ages of cultural deposits are unknown. Just a few artifacts have been recovered from the site and the full range of artifacts, representative of activities carried out at the site, is not known. Paleoenvironmental data such as soils data and geomorphological data have not been recovered from the site. Such data helps archaeologists reconstruct past environments and interpret how aboriginal peoples interacted with that environment. This data also helps document changes in the environment and these changes affected all forms of life. Plants were and are very important to Native Americans and some plant species (e.g. bitterroot, camas) were particularly important to local aboriginal peoples such as the Salish and Kootenai. Plant remains are often preserved in archaeological deposits and can be identified through paleoethnobotanical analysis. Such analysis and exchanges of information with native peoples knowledgeable about traditional plant use can help elaborate and interpret activities which were occurring at an archaeological site and if particular events or ceremonies were occurring at the site. No attempts have yet been made to recover such data from 24LN1045. In fact very little information has been developed with respect to prehistoric plant use at archaeological sites west of the Continental Divide. Testing carried out at 24LN1045 suggests that intact features with preserved plant and animal remains could be present at the site. Because so little data has been recovered from 24LN1045 it seems as though recovery of significant information through excavation and other scientific means is imperative before more of the site is lost to proposed asbestos remediation and associated activities.

If the following guidance is followed, it is highly unlikely that the Council would decide to enter the consultation process under 36 CFR 800.6 or raise objections to the proposed resolution of adverse effects in a given case, unless it is informed of serious problems by a consulting party or a member of the public.

1. The archaeological site should be significant and of value chiefly for the information on prehistory or history it is likely to yield through archeological, historical, and scientific methods of information recovery, including archeological excavation.

Site 24LN1045 has been evaluated as an archaeological site and was found significant primarily for its information on prehistory.

2. The archeological site should not contain or be likely to contain human remains, associated or unassociated funerary objects, sacred objects, or items of cultural patrimony as those terms are defined by the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001).

Such items were not found during evaluative testing in 1993. Recovered objects appear to be more utilitarian in nature and include cutting and perforating tools associated with animal bone which was likely being consumed by site occupants. Presence of heat-altered rock suggests heating and likely cooking (some of the animal bone was charred) occurred at the site.

3. The archeological site should not have long-term preservation value, such as traditional cultural and religious importance to an Indian tribe.

Native American consultation was not required as part of the evaluation of 24LN1045 in 1993. Such consultation has not yet been carried out but is a required part of the Section 106 process for considering adverse effects to the site when a federal agency is involved.

4. The archeological site should not possess special significance to another ethnic group or community that historically ascribes cultural or symbolic value to the site and would object to the site's excavation and removal of its contents.

The Section 106 process recommends soliciting public comments on undertakings and the effects they would have on historic properties. It is currently assumed that such comments on 24LN1045 have not yet been solicited.

5. The archeological site should not be valuable for potential permanent in-situ display or public interpretation, although temporary public display and interpretation during the course of any excavations may be highly appropriate.

24LN1045 is located on private land and cultural materials occur entirely below surface with no obvious visible surface features. Unless the site were found to be extremely rich in cultural deposits and unusual in nature, it seems unlikely that the site has potential for permanent in-situ display or public interpretation. If the property remains as a private holding it also seems unlikely the site would be developed for public use and interpretation. A residential subdivision is a possible future development which would encompass the southern third of the site.

6. The Federal Agency Official should have prepared a data recovery plan with a research design in consultation with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, and the *Advisory Council on Historic Preservations's Treatment of Archeological Properties: A Handbook.* The plan should specify: (a) The results of previous research relevant to the project; (b) research problems or questions to be addressed with an explanation of their relevance and importance; (c)the field and laboratory analysis methods to be used with a justification of their cost-effectiveness and how they apply to this particular property and these research needs; (d) the methods to be used in artifact, data, and other records management; (e) explicit provisions for disseminating the research findings to professional peers in a timely manner; (f) arrangements for presenting what has been found and learned to the public, focusing particularly on the community or communities that may have interests in the results; (g) the curation of recovered materials and records resulting from the data recovery in accordance with 36 CFR part 79 (except in the case of unexpected discoveries that may need to be considered for repatriation pursuant to NAGPRA); and (h) procedures for evaluating and treating discoveries of unexpected remains or newly identified historic properties during the course of the project, including necessary consultation with other parties.

As part of the current contract between Aaberg Cultural Resource Consulting Service and the DOT/Volpe Center (Contract # DTRS57-99-D-000017) a draft data recovery plan and research design for mitigation at 24LN1045 has been prepared and is presented later in this report. Those plans were designed following the guidelines presented above.

7. The Federal Agency Official should ensure that the data recovery plant is developed and will be implemented by or under the direct supervision of a person, or person's, meeting at a minimum the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738-44739).

8. The Federal Agency Official should ensure that adequate time and money to carry out all aspects of the plan are provided, and should ensure that all parties consulted in the development of the plan are kept informed of the status of its implementation.

9. The Federal Agency Official should ensure that a final archeological report resulting from the data recovery will be provided to the SHPO. The Federal Agency Official should ensure that the final report is responsive to professional standards, and to the Department of the Interior's *Format Standards for Final Reports of Data Recovery Programs* (42 FR 5377-79).

10. Large, unusual, or complex projects should provide for special oversight, including professional peer review.

11. The Federal Agency Official should determine that there are no unresolved issues concerning the recovery of significant information with any Indian tribe that may attach religious and cultural significance to the affected property.

12. Federal Agency Officials should incorporate the terms and conditions of this recommended approach into a Memorandum of Agreement or Programmatic Agreement, file a copy with the Council per Sec. 800.6(b)(iv), and implement the agreed plan. The agency should retain a copy of the agreement and supporting documentation in the project files.

PLAN FOR RECOVERY OF SIGNIFICANT INFORMATION FROM 24LN1045

Introduction

The Rainy Creek Site (24LN1045) is located in northwestern Montana, west of the Continental Divide. In a recent paper at the 2000 Montana Archaeological Society annual meeting, Canadian archaeologist Brian Reeves reviewed and summarized the archaeological record of Montana west of the Continental Divide. Among his concluding statements was one suggesting that the archaeological record of this part of Montana is currently so scant as to prohibit an understanding of the entire history of human use of the area. There simply has been very little intensive investigation of archaeological sites in Montana west of the Continental Divide. Archaeological site excavations have been rare in this area. The sorts of analyses undertaken during archaeological

excavation, such as radiocarbon dating, paleoenvironmental studies (e.g. study of soils, study of plant remains, study of geology and geomorphology, study of past climates), study of stone tool use and manufacture, study of lithic or stone sources of material used for tool-making, faunal analysis, ethnobotany and paleoethnobotany have been and continue to be uncommon in western Montana.

The 1993 investigations of 24LN1045 suggest that at least 30% of the site south of Rainy Creek has been destroyed or disturbed by highway and road construction and industrial and residential development (Griffin and Aaberg 1994). The surface survey carried out in July of 2000 indicates that about 75% of the site north of Rainy Creek has been destroyed or disturbed by construction, maintenance, and operation of the vermiculite processing facility and a private nursery and residence constructed subsequent to 1993. Asbestos contamination sampling and testing carried out in late spring and early summer of 2000 indicates that essentially all of the site has been contaminated by this hazardous material. Thus the entire site will be partially or completely destroyed or disturbed by removal of contaminated soil.

The Rainy Creek Site boundaries were expanded after archaeological testing in 1993 indicated archaeological deposits extended eastward beyond the original 1975 boundaries. In July of 2000 site boundaries were expanded to include much of the landform on the north side of Rainy Creek. Site area grew from 45,000 square meters in 1975 to about 70,000 square meters in 1993 (Figure 4). With the additional boundary expansion in 2000 the site area is estimated at about 125,000 square meters. Area sampled through archaeological testing amounts to two square meters or 0.002% of the site. The 1993 investigators believe the area that was sampled by testing is the lowest yielding (in terms of archaeological materials) part of the site (Griffin and Aaberg 1994). The absolute age or ages of the site are not known since radiocarbon dating of cultural deposits has not yet occurred. Time sensitive artifacts recovered in 1993 were fragmentary and allowed for only general comparisons to extant projectile point and cultural chronologies of the area. Studies and analyses described above were not part of the 1993 site evaluation.

Native American participation in proposed significant information recovery is important. Mutual exchange of information and ideas between native peoples and archaeologists is invaluable to interpretation of historic and prehistoric human use of the Kootenai River in the vicinity of 24LN1045. Salish, Kootenai, and Flathead peoples have direct ancestral ties to the landscape in the area of Rainy Creek and the Kootenai River. Their knowledge of their past would be an important contribution to the recovery of significant information from 24LN1045.

How past peoples lived and interacted with the landscape is important to all present peoples. This is probably best stated in a booklet, titled *Archaeology and You*, that was produced by a joint effort of the National Geographic Society, the U.S. Department of the Interior, and the Society for American Archaeology (SAA 1996). This publication states, "Archaeology.....helps immensely in addressing the problems of the present. As we know all too well, these range from the threat of global environmental depletion to misunderstanding - or sheer intolerance - between vastly different cultures. What archaeology offers is at least a glimpse, and in some cases a fuller understanding, of how some who came before solved these problems - and how others failed in their effort. That is

what archaeology is all about" (SAA 1996:33).

Because the Rainy Creek Site is threatened with potential complete destruction or disturbance, and because so little is known of the prehistory of Montana west of the Continental Divide, it seems as though recovery of significant information from the site is in the public interest. The value of the site to living communities as a resource for learning about the past should be recognized through consultation and communication as a part of the data and information recovery plan.

Data and Information Recovery Methodology and Plan

Because of the obvious threat to public health and safety, asbestos remediation in the project locality is considered an emergency. The nature of the asbestos hazard has resulted in certain obviously justifiable constraints on both the time and intensity of any proposed archaeological mitigation and data recovery. First of all, the EPA considers it imperative to remove the asbestos contaminated soils and deposits at the locality as quickly as possible to minimize the threat to public health and safety. The normal planning process associated with cultural resource mitigation in federal undertakings has been foreshortened in this emergency setting. All planning has been accelerated in the interest of public health so remediation of the hazardous asbestos threat can be completed as quickly as possible. Large scale, relatively long-term archaeological excavations are precluded by time constraints. Secondly, because of the hazard posed by the asbestos-contaminated property at Rainy Creek, access to the property is highly restricted. Only personnel trained and certified in health and safety procedures associated with hazardous materials will be allowed on the property during remediation. Any and all archaeologists participating in on-site excavation and data recovery must be so trained and certified.

1. The first step in the data/information recovery plan should be consulting with the Montana State Historic Preservation Office, the Salish-Kootenai Tribal Historic Preservation Office, and the National Advisory Council on Historic Preservation. The Salish-Kootenai THPO can identify other tribal groups and members, such as elders, who may have important information and oral histories on past use of the landscape in the area of the Rainy Creek Site. The cost proposal for information recovery at 24LN1045 should have a budget item for Salish-Kootenai tribal consultation. Although visits to the site are precluded because of health and safety restrictions, elders and others may wish to spend time on organizing oral histories of the area. If acceptable to the tribe the budget line item should be used by the tribe to assemble and write a history of the Rainy Creek locality. This history may include some documentation of use of the Kootenai Trail which reportedly extended up the Kootenai River Valley past the Rainy Creek locality. The Salish-Kootenai THPO should be contacted to determine the appropriate tribal group or groups for compiling this history.

The Rainy Creek Site occurs on private land and legally any artifacts recovered from the site during data recovery belong to the current landowners. However, it may be advisable to discuss with landowners and the Salish-Kootenai tribes the possibility of curating any recovered artifacts at The People's Center museum on the Flathead Reservation. Because of Salish-Kootenai ancestral ties to

the Kootenai River area, and because The People's Center is a federally accepted curatorial facility, it would be appropriate and beneficial to all people to have artifacts curated at this facility. A curatorial fee may be necessary if a curation agreement can be reached between private landowners and the Salish-Kootenai. Other curatorial facilities such as the Montana Historical Society in Helena, Montana would also be available for artifact curation if necessary and agreed to by the private landowners.

2. Archaeological data recovery in the form of excavation is recommended for 24LN1045. However, because of time constraints the hand excavated sample will be small. Remediation is scheduled to begin in August and will likely be concurrent with archaeological investigations. Hazardous material training for archaeologists working on site must precede fieldwork and each archaeology crew member must complete 40 hours of training. As presently envisioned by the EPA, archaeological data recovery would immediately follow the health and safety training. Realistically, only about five days would be available for archaeological excavation following training. Health and safety concerns, and the time involved in training, also preclude fielding a large crew. A crew of four to six archaeologists, including a geoarchaeologist, is the most manageable investigative team considering all of the complexities and concerns associated with a hazardous material remediation project.

Asbestos remediation at the site will include stripping sediments to at least 18" below surface and from four to eight feet in some pockets. Use of heavy equipment for the stripping process would quite likely result in disturbance through rutting and soil compaction to another 12". Therefore all excavation units should be excavated to a minimum of one meter below surface. In 1993 cultural materials were recovered from about 5cm to 40cm below surface. In 1975 cultural materials in areas near the river were observed to over one meter below surface. Because more deeply occurring cultural deposits may be present at the site it is also recommended that a minimum of two square meters be excavated to 2 meters below surface or until sterile river gravels or bedrock are encountered; or until four consecutive sterile cultural levels below one meter are encountered. It is important to investigate the entire history of human use of the Rainy Creek Site so patterns of behavioral changes and adaptations can be understood within the matrix of past environments.

Excavation on the site landforms should be carried out in 10cm levels and as artifacts are encountered they should be piece-plotted with elevations whenever possible. Excavation may be carried out in natural layers following occupational surfaces if plotting of artifacts or natural soil horizon characteristics indicate presence of such surfaces at certain vertical intervals. Excavation will be carried out using both shovel shaving-techniques and trowelling (when occupation surfaces, features, artifact concentrations, etc. are found). Sediments removed from cultural strata will be dry-screened through 1/8" mesh. Stratigraphic profiling will be carried out on two perpendicular walls of each excavation unit. All artifacts, with the exception of fire-broken rock, will be collected and bagged with all provenance data recorded. Fire-broken rock will be counted and characterized (including size range) for each level and/or occupation by excavation unit.

A minimum hand-excavation sample of six square meters (0.005% of the total site area) is

recommended for this data recovery project. Of this six square meters, four square meters should be hand excavated into the portion of the site which occurs south of Rainy Creek. At least three square meters of that minimum sample should be excavated in overbank sediments marginal to the Kootenai River where archaeological deposits appear to be most dense. At least one square meter of that minimum sample should be placed in central or eastern portions of the site south of Rainy Creek, where alluvial fan deposits occur.

A minimum of two square meters should be hand excavated into the portion of 24LN1045 which occurs north of Rainy Creek. All hand excavation should occur at the north edge of the site where archaeological deposits in apparently undisturbed context were observed in 2000. The remainder of the portion of the site north of Rainy Creek appears to be far to disturbed to allow for optimum data recovery.

3. A number of special analyses associated with data recovery have proven to be valuable in assisting with interpreting archaeological sites. The cultural material content and paleoenvironmental record contained within 24LN1045 is part of a data base from which systems-wide patterns can be analytically extracted. The occupations represented at the site were only a part of the annual range or seasonal rounds of hunter-gatherer groups who occupied the intermountain area of the Kootenai River.

Prehistoric cultural diversity and environmental variability within the general Northern Rocky Mountain Region is extreme, particularly between the east and west sides of the Continental Divide. Because of this variability, a single middle-range settlement systems theory has not been posed for the region. Site distributional and settlement modelling has been proposed for portions of the Kootenai River including the project area and the shoreline area of Lake Koocanusa (Jermann and Aaberg 1976; Roll 1982; Choquette 1984; Smith 1984; Thoms 1984). These locally derived models contain elements which could be tested by investigation and analysis of cultural materials at the Rainy Creek Site.

Reconstruction of past environments is an important part of these models and determining season or seasons of occupation is a key to integrating or testing the place of 24LN1045 in extant subsistence and settlement models. The first research question which could be addressed by excavations at the sites is that associated with the season of occupation. If faunal remains with indications of seasonality are recovered then the adaptive behavior of site occupants could be related to previously posed locational and settlement models. Determining seasonality through detailed analysis must be carried out on faunal materials recovered from 24LN1045. Paleobotany and paleoethnobotanical analysis can also assist in determining seasonality. Plant macrofossil (e.g. seeds, roots, stems, leaves) analysis should be carried out if features or deposits with the potential of containing preserved plant materials are encountered. Plant microfossil analysis including pollen analysis, phytolith analysis, and starch grain analysis should also be carried out on samples collected from the site.The inter-relationship of tool assemblages, features, site location, and the extant plant community is also important in interpreting site function and overall place in settlement systems. Therefore identification of plant species within the site catchment area is necessary and should be

carried out in and around the Rainy Creek Site.

Analysis of plant macro- and microfossils is also important in determining what cultural activities occurred at a site. Historically, plants were very important to Salish-Kootenai peoples and plants remain important to contemporary Native Americans including the Salish-Kootenai. The paleoethnobotanical record of Montana west of the Continental Divide is extremely scant. If preserved plant remains can be recovered from 24LN1045 the Salish-Kootenai could likely help with interpreting activities associated with plant use. East of the Continental Divide in Montana the record of plant use as interpreted through the presence of charred seeds, leaves, stems, and other plant parts extends back to 9,400 years ago (Aaberg 1993). For Montana west of the Continental Divide the record of plant use based on the recovery of archaeological plant materials is essentially restricted to the last six or seven hundred years and that evidence is extremely meager.

Site function becomes important in testing earlier settlement and locational models. Analysis of recovered cultural materials will assist in determining site function. Tool variability, feature analysis (including heat-altered rock), faunal analysis, and paleoethnobotanical analysis are all important in interpreting site function. Presumably, tasks carried out in repeatedly occupied camps were varied. This variability should be represented in the cultural material record.

Lithic analysis of materials recovered from 24LN1045 is particularly important in interpreting trade, seasonal movement, changes in adpative and subsistence strategies, and at times population shifts. Choquette (1975, 1978, 1980) posed a model of subsistence and resource utilization of the Kootenai River area based on distributions of certain lithic raw materials. Roll (1982) posed a much differenct pattern of landscape and resource utilization and took exception to that proposed by Choquette. Source analysis of lithic materials recovered from the Rainy Creek Site could be used to compare, contrast, and test those models.

The cultural material record of 24LN1045 is varied and includes lithic artifacts, fire-broken rock, and bone. A variety of analyses should be carried out on these materials. Fire-broken rock should be mapped and if discernible features are discovered they should be mapped, cross-sectioned, described, photographed, and as recommended above, hearth contents should be collected for plant macrofossil analysis as well as overall artifact content analysis. Fire-broken rock should also be counted and characterized since some archaeologists feel there are differences in heat fracturing patterns between rock used for stone-boiling and rock used for baking and/or lining hearths. The distribution of fire-broken rocks may also provide clues to activity patterning within the site. Therefore mapping of the rocks becomes important.

The lithic artifact content of the site is likely varied. Form and function analyses of lithic artifacts should be carried out to assist in determining site activities and function and overall role of the site in settlement systems. It is recommended that site lithic debitage be characterized in detail with observations on lithic type, lithic color, flake technological stage, flake size, flake condition, and presence or absence of cortex.

All lithic tools should be formally analyzed for use wear as well as undergoing metric and non-metric characterizations of form. It is important that tool lithic attributes be characterized to assist in determining if particular tool forms associate with a particular lithic type. Formal characterizations of recovered projectile points is important in associating these time sensitive artifacts with extant typologies of the area. It is also recommended that a sample of formal tools be submitted for blood residue analysis to assist in determining tool and site function and to identify animal species that may have been utilized at the site.

Faunal analysis will follow professional standards and in addition to speciation and identification of elements will include observations on fracture and butchering/processing patterns and seasonality analysis.

Absolute dating of cultural components at the sites is imperative for assisting in correlating local and regional settlement systems modeling as well as placing the site in local and regional culture histories. It is also imperative for geoarchaeological modeling and correlations with paleoclimatic models for the region. The presence of bone in some site deposits within the alluvial terraces, as well as the perceived potential presence of charcoal as suggested by fire-broken rock, should allow for adequate radiometric dating of the site. Bone is present in cultural deposits at the site and could be used for radiometric dating in the absence of charcoal. Even if dateable organics are not recovered, the likely presence of culturally diagnostic artifacts on site landforms will allow for association with culture histories and typologies for the region.

If obsidian artifacts are recovered from the site, sourcing analysis is recommended. Sourcing could allow for interpreting trade systems and contact between peoples of other areas of the Plains and Intermountain region.

Modeling of Holocene and Late Pleistocene Kootenai valley evolution and terrace and alluvial fan development in this area has been posed by others (Cochran and Leonhardy in Roll 1982; Thoms 1984). Buried cultural components in alluvial landforms at 24LN1045 presents an opportunity to determine ages of landforms, and through analysis of soils, compare site geoarchaeological interpretations to those just cited.

Soils analysis is important in determining conditions under which soils formed. Pedogenic variables can be correlated to paleoclimatic models developed for the Northern Plains and Intermountain region. Geoarchaeological investigation of 24LN1045 is recommended. Geoarchaeological and soils investigation and documentation will include profiling and soil description and analysis of each excavation unit and should be augmented by backhoe trenching which will be carried out by EPA remediation contractors and subcontractors during their concurrent work on the property. All backhoe trenches will be recorded and investigated by the project geoarchaeologist. Soil samples and radiocarbon samples will be collected from the trenches when appropriate. If deeply buried cultural deposits are found attempts will be made to collect radiocarbon dates from backhoe exposed cultural strata. At least two backhoe trenches should be excavated to basal gravels if possible. Since asbestos remediation will involve removal of up to eight feet of

sediment in some areas, it is anticipated that geoarchaeological investigation could occur in those areas. Geoarchaeological backhoe trenching will not exceed 0.4% (500 square meters) of the total area of 24LN1045. Backhoe trenching by asbestos remediation contractors in areas of deep asbestos contamination may exceed the 0.4% figure since this construction work will be determined by the depth and lateral extent of asbestos contamination. Geoarchaeological analysis of backhoe trenches will allow for paleoenvironmental interpretations and should help determine the evolution and development of the Kootenai River Valley. Any deeply occurring cultural deposits will be documented through profiling as well as radiocarbon dating (if dateable materials are found). Analysis of backhoe trenches could provide management data for future protection of the site if cultural deposits are found to occur below the zone of asbestos remediation. In the absence of trench analysis presence of deeply occurring cultural deposits will remain undetermined as will the early paleoenvironmental history of the locality.

4. Once excavation, fieldwork, all technical analyses, and Native American consultation has been completed the results and information should be organized into a report which follows all standards for archaeological reporting. The report should include a section on the history of the project locality. Archival research and documentation on historic Native American use of the area as well as the white trading and settlement of the area should be included. As mentioned earlier, the Ben Thomas homestead is believed to have been present at the mouth of Rainy Creek. There is some evidence to suggest that an early trading post (not Kootenay House) was briefly located near Rainy Creek. A historic Native American trail is also known to have passed through the Kootenai River valley. All these elements of the history of the area, and any others, should be researched and documented in the report. If the Confederated Salish-Kootenai Tribes elect to sub-contract to produce a history of tribal use of the project area, this document should be incorporated into the overall cultural resource report detailing recovery of significant information at 24LN1045. It is important that enough copies of this report be produced to ensure that all consulting and cooperating parties be provided with one. It is recommended that a budgetary allowance for the production of 30 copies of the report be included in the proposal. It is further recommended that within two years of the completion of the technical report a report be prepared for publication in local or regional professional journals such as *Archaeology In Montana* or *Plains Anthropologist*.

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APPENDIX A: FIGURES AND ILLUSTRATIONS

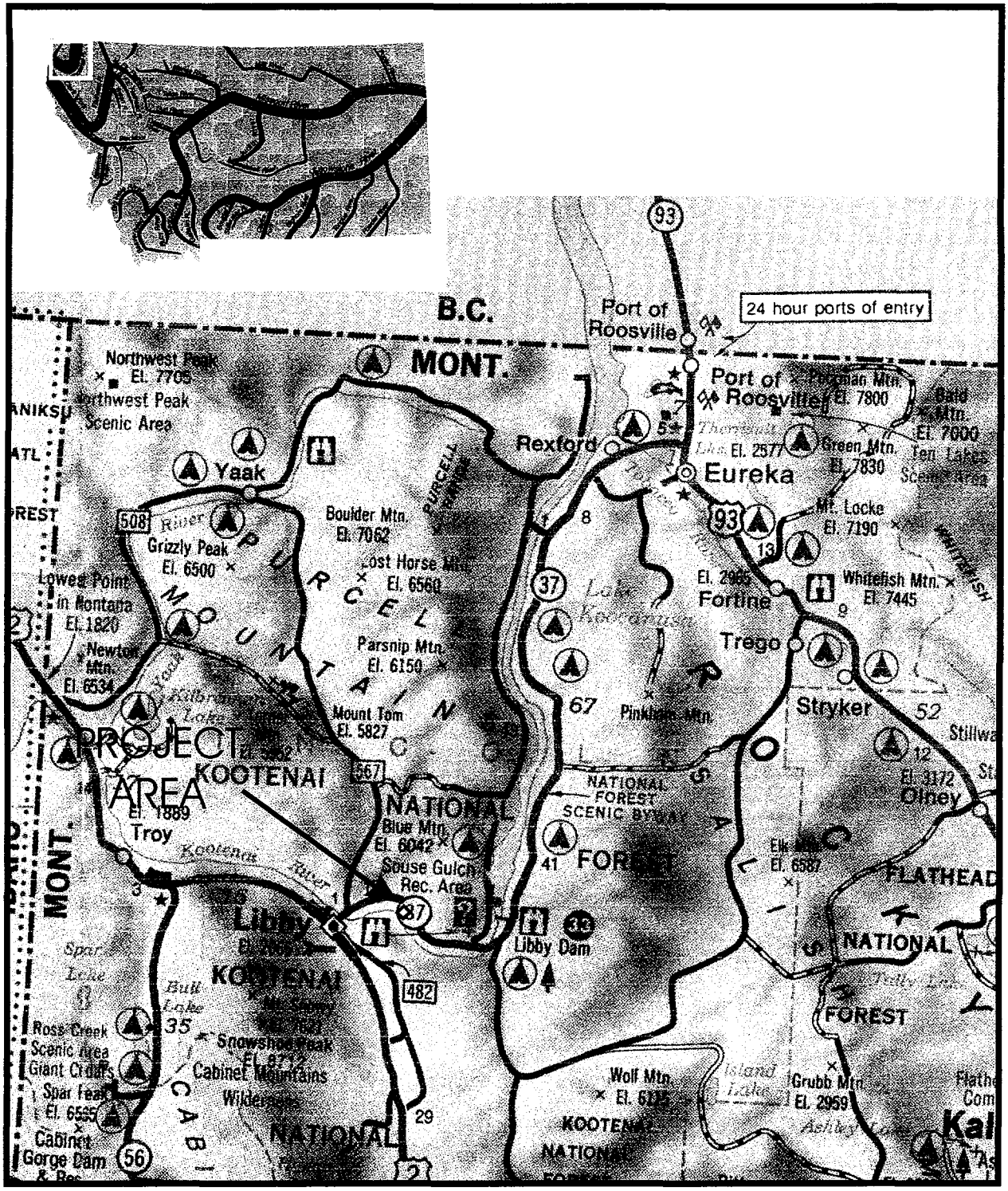

Figure 1: Libby Asbestos Project and 24LN1045 vicinity map in northwestern Montana.

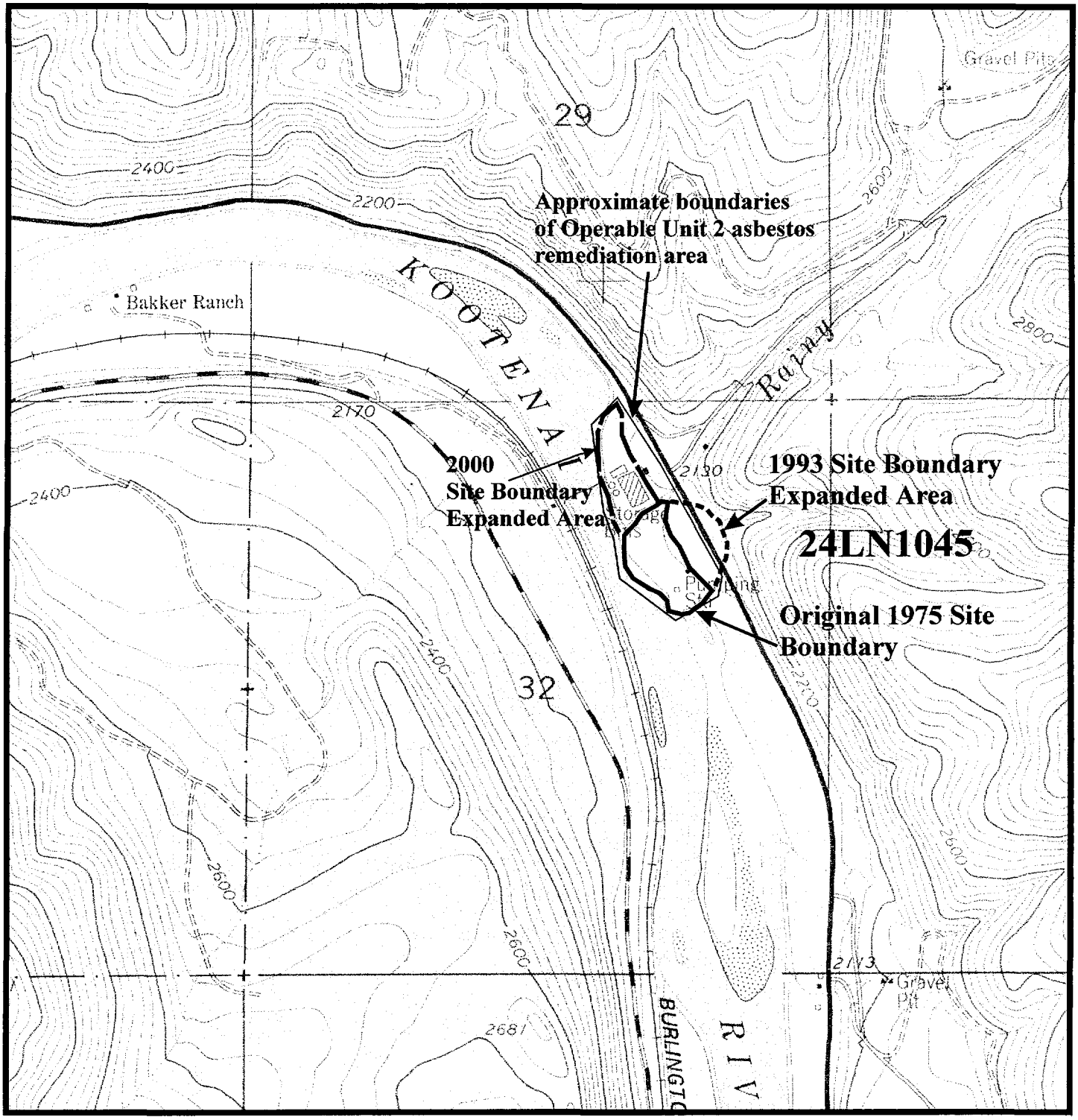

Figure 2: Vermiculite Mountain 7.5' USGS Quad map with 24LN1045 site boundaries and location of Operable Unit 2.

Color Map(s)

The following maps contain color that does not appear in the scanned images. To view the actual images please contact the Superfund Record Center at (303) 312-6473.

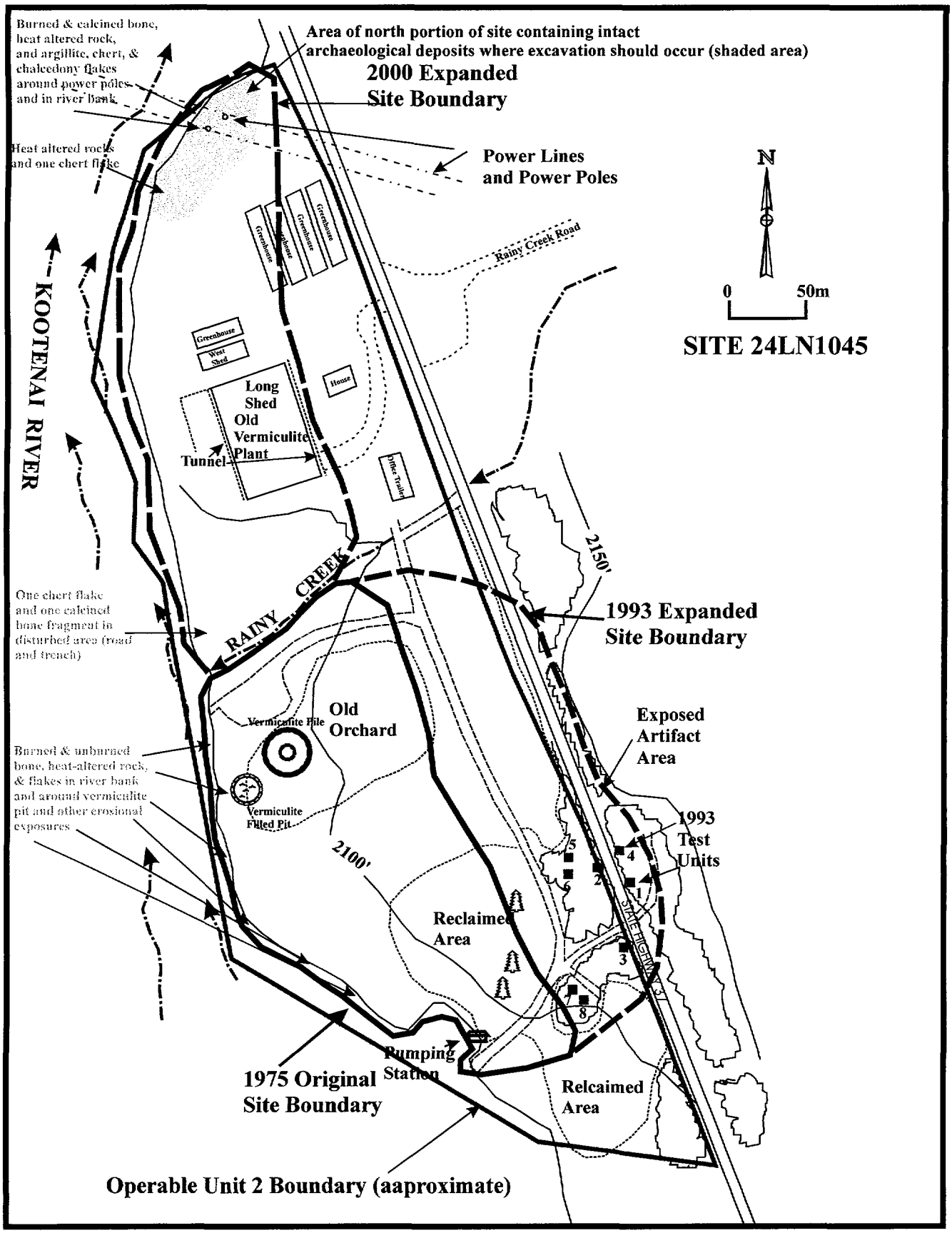

Figure 3: 24LN1045 with 1975, 1993, and 2000 boundaries in area of Operable Unit 2.

Color Photo(s)

The following photos contain color that does not appear in the scanned images.
To view the actual images please contact the Superfund Record Center at (303) 312-6473.

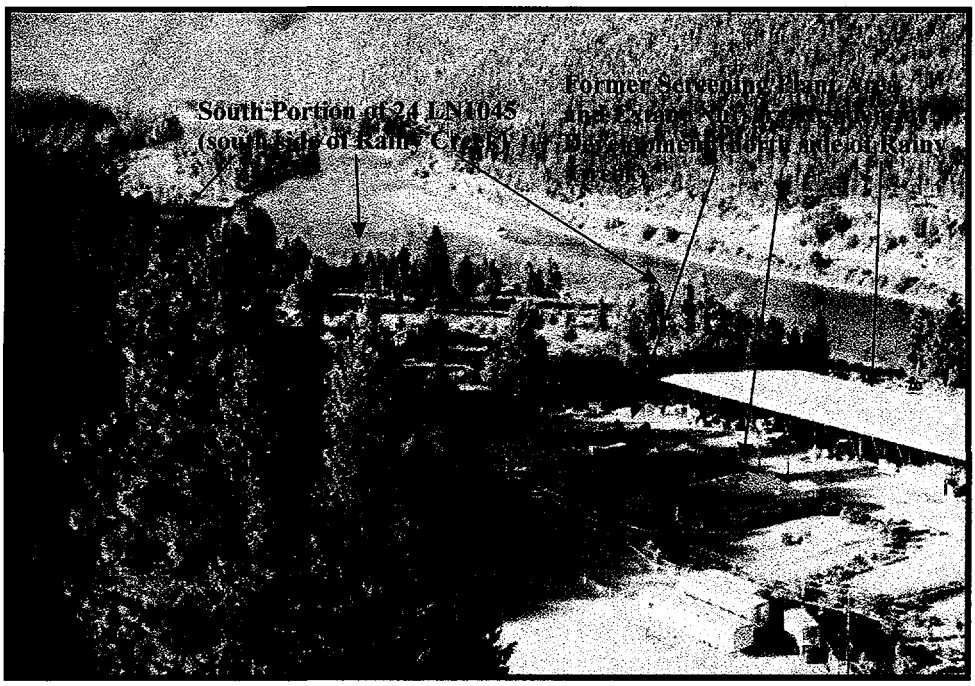

Figure 4: View south of south portion of 24LN1045.

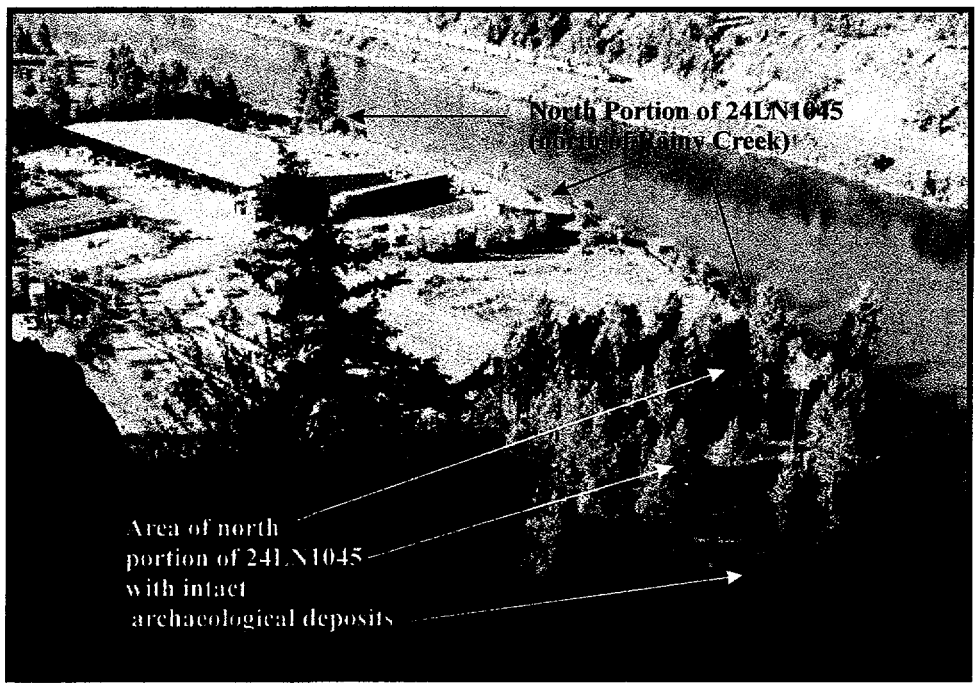

Figure 5: View south-southwest of north portion of 24LN1045.